

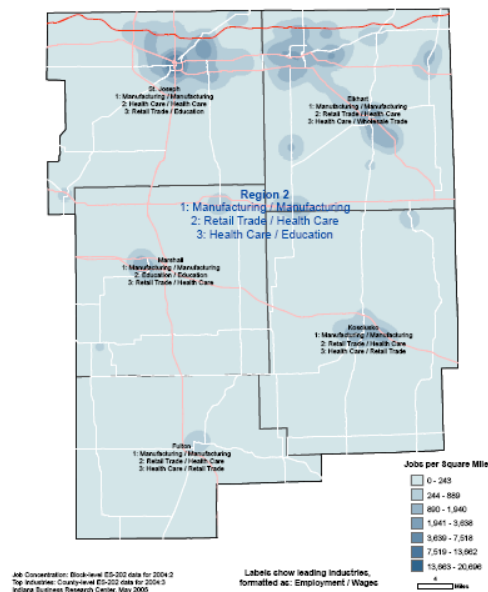
Strategic Skills Initiative

Phase Three Report

Regional Solutions

APPENDIX

Top Industries by Employment and Wages



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TOMORROW'S WORKFORCE

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Search for Solutions

The process of devising appropriate solutions to the root problems identified in our SSI Phase 2 Report began with a review of the websites provided in the SSI Guidebook, which were referred to during the first online training session. While we visited all the websites listed, we discovered that relatively few of them offered best practice solutions to our specific target occupations:

Advanced Manufacturing:	Health Care:
First-line Supervisors	Registered Nurses
CNC Machine Operators	Respiratory Therapists
Welders	Medical Assistants
Transportation Equipment Painters	Coders, hospital

Of the websites visited, valuable information was retrieved from:

American Association of Colleges of Nursing	www.aacn.nche.edu
American Association of Respiratory Care	www.aarc.org
American Welding Society	www.aws.org
Fortune 100 Best Companies to work for	www.fortune.com/fortune/bestcompanies
The Magnet Recognition Program	www.nursingworld.org/ancc/magnet/
Project Lead the Way	www.pltw.org
Suncoast Workforce Board	www.swdb.org

However, we found that many of the recommended websites were neither line-of-sight with our particular occupations, nor oriented to practical, “tire meets the road” solutions. While these references abound in theoretical material, the immediately practical, applied advice on how to implement workforce solutions was, for the most part, missing.

At that point, we engaged the services of two part-time research assistants, because it had become apparent that the amount of study needed to develop workable solutions for EGR2’s occupational shortages required not only analysis of the regional economy and past attempts at solving the shortages, but also a thorough exploration of what other localities have attempted in the same pursuit. Thus, the first researcher was asked to search all publications, trade journals, websites, and training materials related to our particular occupations. Furthermore, she was challenged to explore government, academic, and advocacy association materials in search of predictions of future developments in our target occupations, as well as strategies proposed by those groups for alleviating shortages in both the short- and long-terms.

The second researcher was asked to explore local newspapers, magazines, journals, and miscellaneous publications for articles relating to occupational shortages and proposed solutions from the previous three years. In addition, she was asked to canvass the Internet, seeking material concerning proposed solutions to similar shortages from other cities, states, educational institutions, and even other countries.

The Strategic Skills Initiative team met weekly to sort through the material retrieved by the Director of Research and the two assistants, and to begin the process of identifying those strategies that might be worthy of further examination.

Preliminary Data Collection

As a result of the investigations undertaken by the researchers, a number of potential avenues of information were developed. First, the investigation into occupation-specific strategies yielded a variety of options:

Line of Sight Training Solutions, by Target Occupation

Occupation:	Skills Enhancement Solution:	Solution Source:
First-Line Supervisors	Modular skills training	IUSB – Continuing Education Division

Other sources of ideas and solutions that were considered:

www.coastal.com www.netspeedleadership.com
www.prodevelop.com www.selectassesstrain.com
www.ninthhouse.com www.kineticvideo.com
www.trainingcps.com/g_page5a.htm
www.elearning.hbsp.org
www.ddiworld.com
www.achievegloab.com

While many of these programs seem excellent, we found that much of their emphasis was on management personnel and management issues, while we were searching for a training package that would address manufacturing line supervisors in a manufacturing environment that was changing from a rather traditional factory setting to one characterized by advanced manufacturing processes (such as lean manufacturing, etc.) In the end, we found that *Indiana University South Bend's* continuing education division is able to tailor a series of training modules for the particular issues and changes that are relevant to our region, and at a cost much more reasonable than would be encountered with the programs noted above.

Occupation	Skills Enhancement Solution	Solution Source
CNC Operator	Virtual Reality skills training	www.ascience.com
		Advanced Science and Automation Corp. 5980 West 71 st Street Indianapolis, IN 46278

Other sources of ideas and other solutions that were considered include:

Modern Machine Shop: www.mmsonline.com

"Manufacturing in Transition"

"EMO 2005: Navigating Strong Currents of Global Competition"

"Table for Education Desktop CNC Machines," www.desktopcnc.com/educate_table.htm

"Denford Virtual Reality CNC Milling," www.denford.co.uk/product.asp?link=88

"The Future of CAD CAM Software," www.cadcamforum.net/dirt/camfuture.html

"CNC & CAD/CAM initial & continuing vocational training,"
www.mts-cnc.com/deutsch/pdf/vocational-en.pdf

"CNC Training" www.cncezpro.com

Tooling University Online and CD-ROM CNC training courses, www.toolingu.com/aboutus.aspx

V-CNC training software,
www.hut.edu.vn/trungtamphanmemcongnghiep_homesite/englishsoftware.htm

Vericut CNC machine simulation, www.cgtech.com

"Online Training – A Lesson in Reality," www.productionmachining.com/articles/1005tb2.html

"CIT develops virtual reality milling machine for interactive training,"
www.irishscientist.ie/CITDF104.htm (Cork Institute of Technology)

Machine Tool Technology competency standards. Elkhart (IN) Area Career Center.

"CAD/CAM software functions at micro level,"
www.americanmachinist.com/304/Issue/Article/False/11568/IssueNov.30.2005

Ivy Tech Community College, South Bend and Elkhart campuses – CNC labs

Quite early in the process of developing solutions that are line-of-sight with our target occupations, it became clear that the most significant advances in CNC training were in the world of Virtual Reality. Using any of several delivery methods, this kind of training can be received at any location in EGR2, and the student can work either in a classroom or home, while engaged in self-paced learning. A number of manufacturers reported great success when their employees began their training on a computer (e-learning or CD-ROM software); in addition, the use of Virtual Reality training products has gained a large measure of support as a result of empirical studies conducted on student learning and learning outcomes:

Ausburn, Lynna J., and Floyd B. Ausburn. "Desktop Virtual Reality: A Powerful New Technology for Teaching and Research in Industrial Teacher Education."
<http://scholar.lib.vt.edu/ejournals/JITE/v41n4/ausburn.html>

One of the leading producers of Virtual Reality products, VRSim, describes "virtual reality" as follows:

Visual Simulations/Virtual Reality Systems

Visual simulation is the use of a graphics interface to interact in real time with a simulation running on one or more computer systems. A virtual reality environment, which can be used to support a visual simulation, creates a 3D full immersion experience with user interaction. The user can then interact with the features of this virtual environment, and these digitally created features can, in turn, be dynamically modified to meet the objectives of the simulation.

Not all simulations require a virtual reality environment. Many are set up using traditional computer video displays or projection systems.

A virtual reality system combines operating software with environmental data-such as CAD designs, digital video or computer generated images-to enable a user to interact in real time with this virtual environment through a series of input/output devices.

IO Devices are able to simulate a variety of sensory experiences including:

- Sight: head-mounted display or goggles
- Sound: speakers or headphones
- Touch: data gloves and haptic devices
- Smell: currently in development

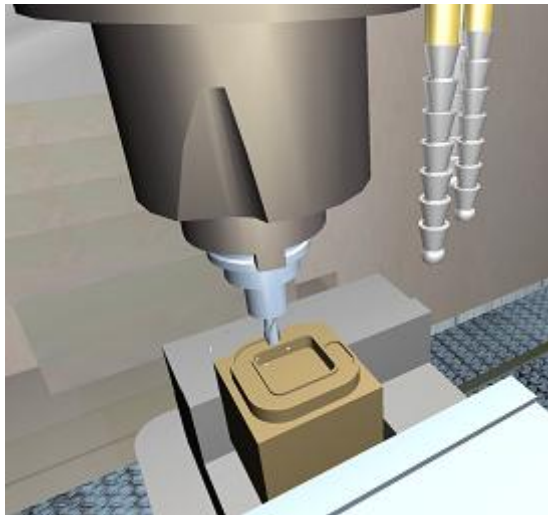
The operating software for a virtual reality system must coordinate the interaction of these components and, through IO devices, provide realistic reactions and responses to the user's actions.. VRSim has developed its own software solution known as the *EndeaVR* Suite.

Virtual reality systems and visual simulations are used to solve a variety of problems in such diverse areas as product design, product life cycle management (PLM), manufacturing, training and the visualization of complex data. VR can also be used in the entertainment industry (games, gambling, and amusement attractions), retail (product demos, design testing), and sensory activities (relaxation, personal physical simulation).

Conclusions

In the end, it was decided that the superior product was the Virtual Reality Training Environment for CNC Machine training developed by Advanced Science and Automation Corp., of Indianapolis. Of coincidental benefit is the fact that this is a new, Indiana-based corporation. Corporate personnel provided a demonstration of the product in our offices, and excerpts from the training were presented to the primary CNC instructor from Ivy Tech Community College. He agreed with our assessment: this product is an excellent introduction to CNC machine operation, and will serve quite well as the first two-thirds of a training sequence. The program delivers several hours of lecture, accompanied by visual supports, and then guides the student through several projects, at

first showing how to do the project, and then allowing the student to do a project on their own, but correcting mistakes as they occur. Among the benefits of such training, as with all VR training, is the fact that no consumable material is used, making it very cost-effective, and the fact that such training is completely safe. Students engaged in CNC Operator training will spend the first two thirds of training in their own environment, and then will travel to the Ivy Tech Community College CNC laboratory at their convenience for hands-on practice, under the guidance of the college instructor. Upon demonstration of competence with the machine and controller, the student will be given a transferable certification.



Elkhart (IN) Area Career Center, welding degree competency standards including metallurgy expertise and facility at reading blueprints.

Conclusions

While the preferred training modality at the moment would be the CS-WAVE system, the constraints involved in its acquisition and use are prohibitive. Therefore, it has been decided to assist the development of the Virtual Reality system being created by Advanced Science and Automation Corp. The programmers have responded to our input, and are including some of our suggestions in the system. The end product, for which EGR2 will be a Beta test site, will rival the CS-WAVE in sophistication and graphics, and will be superior in that it will include a lecture series similar to that found in the same company's CNC VR training system. Thus, the student welder will receive not only training in the feel of the welding tool and the correct angles, speeds, and rates of metal deposit, but also will receive instruction in metallurgy, safety, varieties of welds, etc. via interactive and multi-sensory lecture modules. A portion of this system has been completed; we are requesting seed funding to assist in the time-sensitive development of the rest of the system. We have been in contact with welders in the area, who are anticipating receipt of the system with considerable anticipation.

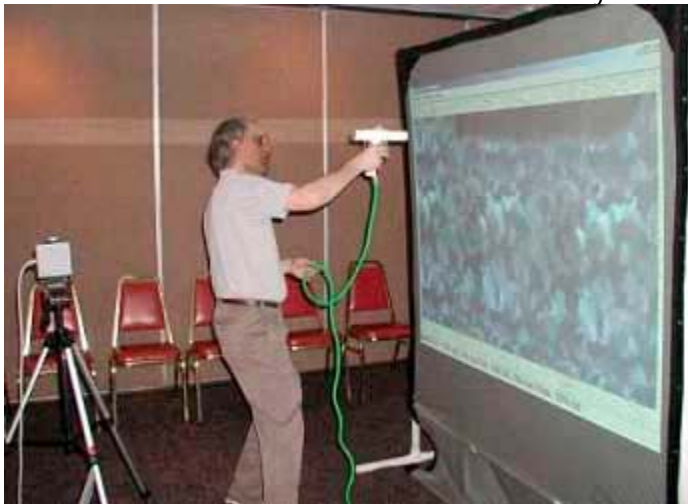
Occupation	Skills Enhancement Solution	Solution Source
Transportation Equipment Painter	Virtual Reality training system	in process

Two Virtual Reality systems for the training of painters have been developed in the past couple of years, and are just now appearing on the market. They are from:

The Johnson Center for Virtual Reality: Industrial Training Simulations, noted in

www.polhemus.com/PineTechnical%20College%20CS.htm

The Johnson Center VR system:



Another system currently in operation is STAR4D, developed by a consortium led by the Iowa Waste Reduction Center at the University of Northern Iowa, the Southwest Research Institute, and the Defense Logistics Agency, United States Department of Defense. This system shares many components with that created at the Johnson Center, and engages the student in a very similar way.



The STAR4D system shares many components and techniques with that from the Johnson Center. However, the "D" in STAR4D means "defense." The system was created for use in the American Military's various vehicle painting sites, and while effective as a training system, it is proprietary, and therefore unavailable to EGR2.

www.star4d.org

Conclusion

Field testing of the Johnson Center system, brought to South Bend by the Director of the center, and then taken to a gathering of recreational vehicle painters in Nappanee, IN, indicated that the system as it was presented was not satisfactory for the style of painting done in RV manufacturing. Much of the painting with which SSI has been concerned involves large, long, flat panels, and techniques that require the painter to look ahead of his or her airgun, a technique not featured in the Johnson VR system.

Therefore, it was decided to enter an agreement with Advanced Science and Automation Corp. for the creation of a Virtual Reality system specifically designed for the transportation equipment industry. They already have the facility to develop VR systems in other occupations, as noted above, and we have had a series of discussions that have led to a proposal for the development of such a training system. It seems likely, in addition, that this particular VR system will eventually be of value to the automotive painting industry in general, from car dealerships to body shops.

Of greatest importance is the fact that Advanced Science and Automation Corp. has experience in the creation of a lecture component, not generally available with the other systems, with which the student can gain knowledge of the chemistry, procedures, and techniques of painting, as well as the muscular training to successfully make the transition from training to the painting booth. Conversations with Advanced Science are continuing, and a research and development budget is under construction. The fact that they are an Indiana corporation, and that we would be helping with value-added wealth creation for Indiana, is a fortunate aspect of this relationship.

Health Care Occupation Shortage Solutions

Registered Nurses

In the SSI Phase 2 Root Cause report, we noted that the RN shortage involved an interaction between the lack of qualified MSN-level nurses to serve as instructors in nursing schools, the lack of funding for faculty to teach MSN-level nurses so that they can then graduate and become instructors in RN programs, and the lack of sufficient clinical sites to maintain a good pipeline of nursing students moving through their required clinical experiences. These root causes operate together; and in fact they can become circular and mutually reinforcing, leading to what has become a nation-wide, serious shortage of Registered Nurses. Because the shortage is indeed widespread, we decided to investigate the solutions considered by other communities, states, and nursing/educational associations. A large number of proposals have been offered, for a number of years. They are generally summarized in a White Paper published by the American Association of Colleges of Nursing in 2003:

www.aacn.nche.edu/Publications/WhitePapers/FacultyShortages.htm

Proposals have not only addressed the shortage of nursing faculty, but also the other bottlenecks of clinical site shortages and MSN program production:

www.aacn.nche.edu/Media/PartnershipsResource.htm

This paper itemizes nationwide efforts to solve the root causes of the problem, which are everywhere the same as those in EGR2. Another resource that was perceived to have value, even if a bit dated, is: www.nursingworld.org/ojin/topic14/tpc14_4.htm a paper dealing with both short-term and long-term solutions to the RN predicament.

Further information and potential solutions were located at:

www.rightchoice.org/img/other_asset/CCDAnnualReport03-04.pdf

www.rwjf.org/files/publications/other/ChartingNursingFuture0105.pdf

www.findarticles.com/p/articles/mi_qa4090/is_200503/ai_n13632960

www.aacn.nche.edu/Publications/issues/IB499WB.htm

www.aacn.nche.edu/Publications/positions/whitepaper.htm

www.nursesource.org

<http://www2.kumc.edu/son> - a page on this site describes the University of Kansas' School of Nursing's PhD online program designed to train candidates capable of then joining faculties of RN programs, alleviating one bottleneck. Many members of nursing faculties object to this sort of program as lacking hands-on, practical experience – the best source of critical thinking skills, in their opinion.

http://ckp.kp.org/newsroom/scal/archive/scal_050422_nursinggrants.html - an article concerning a program of “forgivable loans” to students pursuing the RN or MSN degrees and agreeing to work at Kaiser Permanente hospitals for a pre-established time period.

http://web.mhanet.com/asp/Workforce/Health_Scholarships.asp - source of the following article:

Health Professions Scholarship Program

MHA established a \$1 million scholarship program for students pursuing careers in nursing and the allied health care professions. The new program is designed to attract new recruits to health care and assist current students in registered and licensed health care programs throughout Missouri. It began in 2002.

"Hospitals are currently facing shortages of qualified health care professionals," said MHA President Marc D. Smith. "These shortages are soon projected to reach critical levels throughout the next 20 years. MHA's scholarship program is a significant, proactive step we can take to help Missouri hospitals continue to provide quality care."

The scholarship program will be funded by the MHA Center for Education. During its three-year pilot phase, the initiative will provide 166 scholarships of \$3,000 to \$6,000 per student.

To accelerate student entry into the workforce, the scholarships will be limited to students who are within two years of completing their professional education. One year of work repayment in an MHA-member hospital in one of six geographic regions of the state will be required in return for each year of tuition support.

Students who are studying for associate's and bachelor's degrees in nursing will be eligible, as will students who plan to be licensed practical nurses. Also eligible will be students in pharmacy, radiologic technology and surgical technology.

Scholarship recipients will be selected by a statewide committee comprised of representatives of MHA-member hospitals, members of MHA's Task Force on Workforce Development and faculty members of health professional schools.

MHA's scholarship program was proposed after MHA's Task Force on Workforce Development began to study the problem of worker shortages. In March 2001, MHA surveyed member hospitals and found vacancy rates of 6.8 to 14.3 percent in full-time, registered-nurse positions. The average vacancy rate for pharmacists in Missouri is 11.6 percent, with a 14.1 percent average vacancy rate for registered radiological technologists.

In addition, the committee found that nursing school enrollments and numbers of graduates have declined for the past five years, with an average enrollment of 76 percent of capacity in 2000.

"We believe that the lack of scholarship incentives may be a contributing factor in declining nursing school enrollments," Smith said. "Only one student in 10 pursuing a bachelor's degree in nursing will receive a scholarship. In contrast, many other programs, such as business and education, offer a greater number of scholarships."

"Hospitals are facing an aging population that will place more demands on the health care system in the future, an aging workforce and a reduced pool of young people entering the workforce," he

noted. "It will require all of us working together, as we've done with the MHA scholarship program, to address these critical issues."

While this program certainly recognized the need and a potential solution to that need, the problem became one of funding, and the program lasted only two years. Hospitals in Missouri, as elsewhere, find it difficult to fund even "forgivable loan" programs without matching funds from some source. It may be possible for EGR2's SSI to assist in such funding through its proposed education assistance fund; however, the long-term success of this depends on both hospital and foundation support.

Throughout these discussions, the consistent thread has been the three-fold problem of: not enough nurses in the pipeline, caused by not enough faculty to train those students, exacerbated by not enough clinical sites to maintain a flow of nursing students sufficient to even come close to meeting the need.

A number of solutions to these specific problems were investigated:

"Healthcare Workforce: Turning Crisis into Opportunity" from The Workforce Boards of Metropolitan Chicago, at www.workforceboardsmetrochicago.com

www.csmc.edu/pdf/Nursing-NurseInstitute.pdf - a paper on the strategies that Cedars-Sinai Hospitals are using for nursing education and retention.

<http://www.hopkinsmedicine.org/jhhr/TrainingEducation/skillstrain.html> - a website dedicated to an in-house skills training program developed by Johns Hopkins Health System and Hospital.

http://www.campusrn.com/scholarships/scholarship_detail.asp?scholarship_id=248&browse=1

http://www.campusrn.com/scholarships/scholarship_detail.asp?scholarship_id=249&browse=1

<http://www.in.gov/ssaci/>

<http://www.illinois.gov/PressReleases/ShowPressRelease.cfm?SubjectID=3&RecNum=3888> – announcement of a \$560,000 grant to workforce boards in Southern Illinois for the purpose of increasing the number of nursing students in the pipeline.

<http://www.ihatoday.org/issues/workforce/bills.html> - additional material on the Illinois initiative.

Conclusions

The first, and easiest conclusion reached concerned the Masters of Nursing Program at IUSB. Focus group discussions had brought this issue up from the very early days of the SSI effort, and the problem was ongoing – no funding had been allocated this program for faculty slots, and consequently the program had not yet admitted any students. It seemed rather obvious that one of

the SSI efforts could be to supply or seek funding for a faculty position in that program in order to begin the process of training MSN-level nurses who could then go into faculty positions with regional RN programs, thereby increasing the size of the RN pipeline and producing more local Registered Nurses to fill empty positions.

That solution, however, only addressed two thirds of the Root Cause. What remained as the issue of additional clinical sites. We found that this issue actually involved two sub-issues. On the one hand, there was a reluctance on the part of regional hospitals to open more clinical options because of the traffic on the floors, the insurance considerations, and the lack of clinical site faculty capable of supervising the students in the facility. On the other hand, clinical sites are a natural bottleneck for nursing students, since by law the student population is limited to 10 per site, and since even a group of 10 can sometimes become unwieldy.

Three possible solutions have been suggested:

1. Work with regional hospitals to open up more clinical opportunities by permitting clinicals to occur during evening and nighttime shifts. Generally, clinicals are put on during the day...when there is the most traffic in the hospital, and while students may be reluctant to give up their evenings or late nights, this is a very workable solution – with one big caveat, as follows:
2. Supervising faculty for clinicals are in short supply; this is obvious, since nursing faculty are in short supply and the clinicals are generally run by members of the faculty from the source school. However, information from other communities, and the documents referred to above, suggest that one way of solving this issue is for members of the hospital community, such as nurse supervisors or nurse practitioners, might serve as clinical “preceptors,” under the supervision of nursing program faculty. This has been successfully accomplished elsewhere, and although there may be issues that require a change of policy by the Indiana state authorities, the SSI staff believes this option is worth investigation.
3. Finally, there has been significant in the technology capable of facilitating nursing clinical experiences without risk or intrusion to patients – simulations. A number of possibilities were explored:

<http://www.medsimulation.com/> - creators of the SimSuite Medical Simulation packages, which are set up in a hospital room, and can be used to allow physicians, nurses, and other practitioners to practice a variety of protocols and procedures.

www.rti.org – RTI International, developer of Sim-Patient, CD-ROM software designed to provide Virtual Reality training scenarios for clinicians. Also provides distance-learning for critical care nurses, via the Internet.

<http://www.immersion.com/medical/products/>

<http://www.xitact.com/>

<http://www.novint.com/profapps.htm>

These four sites deal with “haptics,” a fairly new science of touch. The guiding principle is that if nurses and other practitioners can learn how it feels to do a particular procedure, then they can transfer that muscular memory to a live patient. The original haptic simulation was catheterization, and more have been developed, including IV insertion.

<http://www.lsr.ei.tum.de/researchseite/telepresence/vr.html>

As one might expect, the greatest amount of money, and publicity, has gone into medical simulators, or mannequins, that have been created to produce amazingly life-like symptoms and behavior. These devices range from the quite simple – and hence inexpensive – to the state-of-the-art humanoid. Two companies are presently competing for the title of “most lifelike” – Medical Education Technologies, Inc., and Laerdal. Currently, METI offers the most sophisticated – and most expensive – simulator, and Laerdal is a very large, multinational corporation dealing in a huge assortment of training devices.

“Stan the Man” and his associated training simulators, can be found at www.meti.com

“SimMan,” “Nursing Kelly,” and a wide range of other training devices, live at www.laerdal.com



SimMan (on the left), and Nursing Kelly, from Laerdal.

Consistently, our partners in both nursing education programs and hospitals have advocated the use of these mannequins during both nursing labs and clinicals. It is believed that such simulators will speed up the clinical process, allowing more students to move through the pipeline, and hence through the final year of nursing school. No decisions have been made as to just which mannequins are desirable; however, as a result of many conversations and focus groups, SSI will propose the establishment of a fund with which to purchase mannequins specific to the needs of the particular program or hospital. Identification of particular mannequins for purchase depends on the level of funding forthcoming through the SSI grant and the specific needs of the end users.

Respiratory Therapists

Root cause: lack of regional training programs.

The number of respiratory therapists needed in EGR2 is relatively small; however, the shortage is critical, inasmuch as the absence of an RT can at times be quite dangerous to a patient in crisis. Therefore, our health care partners have made up the local shortage by hiring “travelers,” Respiratory Therapists from out of the area, who command nearly three times the salary of local practitioners.

Moreover, the only programs for Respiratory Therapists in Northern Indiana exist in Gary, at IU Northwest, and in Fort Wayne, at IU-PUFW. Since graduates of those programs will likely find employment within their own areas, it became clear that the most effective solution to the shortage of RTs would be the establishment of a training program closer to EGR2. As it turned out, there already existed such a program locally, at Ivy Tech Community College, South Bend. However, although the program had received all the requisite approvals, program funding had not been obtained. After meetings involving regional hospitals and other health care providers, and after meeting with Ivy Tech to assess their funding needs, it became clear that the best solution to the shortage of Respiratory Therapists would be for the EGR2 SSI to provide start-up funding to Ivy Tech for faculty and equipment. Although this proposition involves a significant level of expense, the long-term effects of the program’s efforts will be to alleviate all of the Respiratory Therapist shortage, establish a pipeline of new RT professionals to work in home health care, ambulatory facilities, nursing homes, and other health care establishments, and provide people moving out of the area with transportable degrees. It is anticipated that by the third year of the program, Ivy Tech should have received sufficient tuition, partner matches, and grants to sustain the program without SSI contributions.

Health Information Technicians – Coders

Root Cause: Inadequate funding for training for career ladders, leaving workers in low-wage occupations.

Among the sources of information gathered about solutions to this problem, the following were of great value:

American Academy of Professional Coders www.aapc.com

American Health Information Management Association www.ahima.org

Johns Hopkins Medicine Career Advancement
www.hopkinsmedicine.org/jhhr/TrainingEducation/skillstrain.html

Hoffman, Allen. *Electronic Medical Records*, www.monster.com/articles/medrecords

Conferences with local educational institutions, and meetings in which these providers and hospitals were brought together, indicated that the current pipeline for coders is large enough to

supply a sufficient number of coders to the establishments in the Region. However, there is a significant problem. All of the programs, whether leading to a certification or Associate's Degree, with the single exception of that offered by Davenport University (a program not well-known in the community), are oriented toward coding for physicians' offices. Hospital representatives have indicated that there is a great deal of difference between coding for doctors' offices and coding for hospitals.

Therefore, it was decided that the role of SSI, in terms of reducing the shortage of appropriate coding professionals for hospitals, would be to encourage and facilitate discussions between training providers and regional hospitals. The intent of these discussions is two-fold. First, SSI seeks to advocate the change of one current coding course, offered by either Ivy Tech or IUSB, away from a focus on physician office coding and toward that needed by hospitals. These discussions have thus far been positive, and it appears that the Fall of 2006 will find one of the courses formerly oriented toward MDs now oriented toward hospitals.

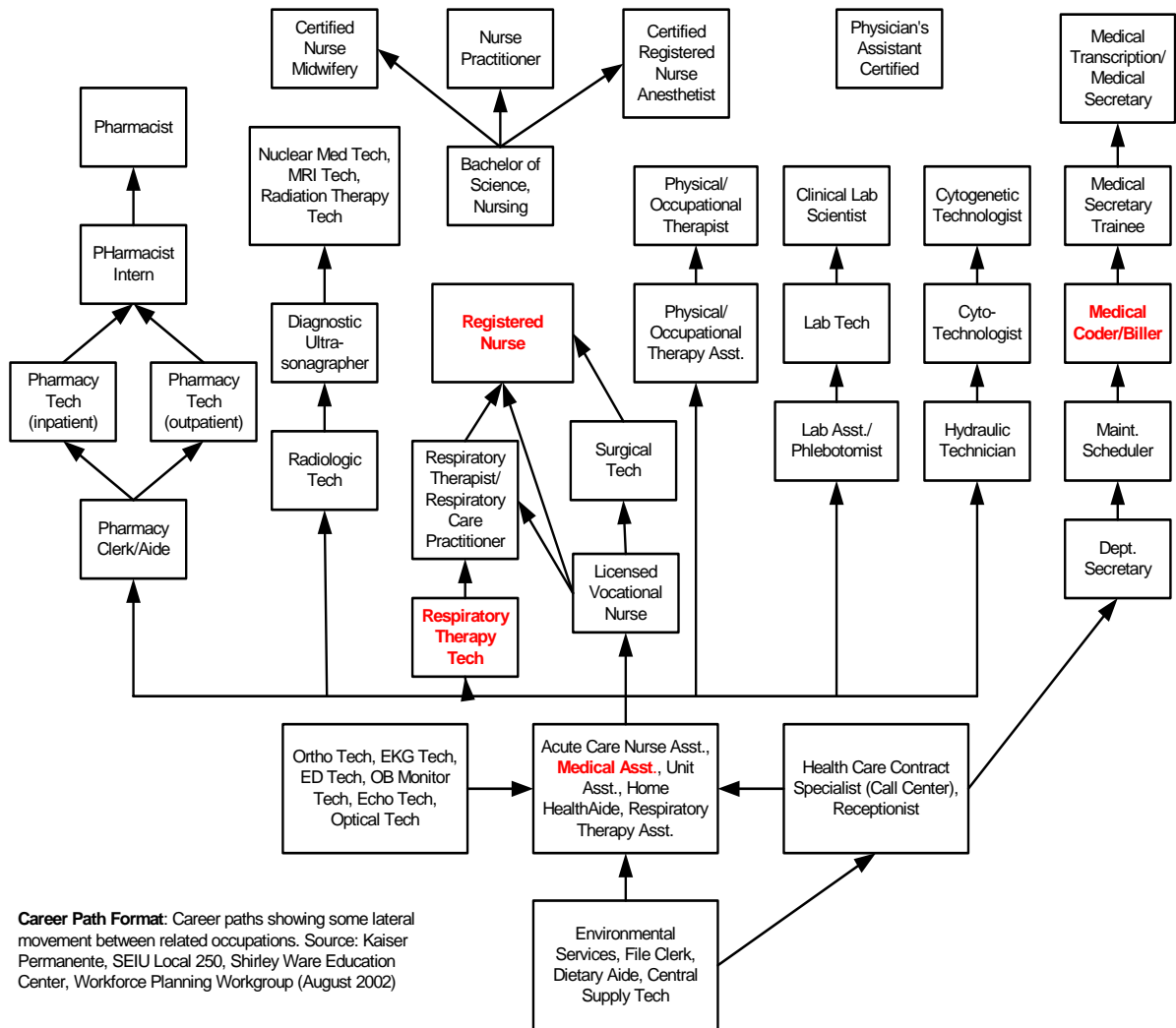
Second, SSI research discovered that a primary cause for the loss of coders in the hospital involves low wages. Local coders are now able to go to work for distant hospitals using Internet sites, and to earn more money online than they would receive from local institutions. Discussions with regional hospitals indicated that there was an awareness of the pay inequity, and that measures were being discussed to rectify that inequity. SSI also suggested that hospitals might engage in a process of converting their own coding to a process using the Internet. At least two hospitals are actively developing that capacity, and one effect of that transition may be to attract local coders to work for local hospitals. This will require increases in wages, and discussions about that have been held.

Medical Assistants

Root Cause: Inadequate funding for career ladders, leaving workers in low-wage occupations.

The hospital occupation-relations chart on the following page suggests that a ladder could be devised by which Medical Assistants, who are usually at the lower end of the pay scale, could move into positions of greater pay as a result of additional education and training. One idea that surfaced during many of the focus groups was to devise a way by which Medical Assistants could become Registered Nurses. Constraints to that move involved the issues considered in the foregoing discussion about RNs and the bottlenecks to increasing the pipeline. Also, it became apparent that Medical Assistants, no matter how qualified for entry to RN training, would find it difficult to afford tuition and living expenses while attending school.

Figure 2: Kaiser Permanente Lateral Movement Career Path Format



As a result of many focus groups and discussions with hospital and educational institutions, the SSI staff decided to propose the establishment of a fund from which deserving Medical Assistants could solicit loans to help with Registered Nurse tuition. At the same time, hospitals were brought to the table, and discussions were held about maintaining wages of Medical Assistants who were upgrading their skills in RN training, for the duration of that training. A number of programs throughout the nation were researched, and it was decided that such a partnership was possible.

Therefore, a portion of the budget request from EGR2 involves these loans, which will be paid back upon receipt of the degree, and which may involve a commitment to work for a participating hospital for a certain period of time.

It was recognized, in addition, that this program will have the additional effect of opening Medical Assistant positions for other people, and discussions are underway to devise methods of attracting people, including minorities too often excluded from health care jobs, into those positions.

Additional Resources

In order to ensure that our research into solutions was not only thorough, but was also consistent with the needs of EGR2 and the position of EGR2 in the state, national, and global economies, a number of other publications and websites were examined.

Educating the Engineer of 2020: Adapting Engineering Education to the New Century. National Academies Press, 2005, download available at <http://www.nap.edu/catalog/11338.html>

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www.nano.gov The office of the National Nanotechnology Initiative, a source of much information about nanotechnological potentials and products.

www.smalltimes.com An e-zine, published regularly, about developments and issues in nanotechnology. An excellent source of news about recent discoveries and developments.

The Technology Industry at an Innovation Crossroads. Electronic Industries Alliance, May 2004. www.eia.org/news/pressreleases/2004-05-05.153.phtml

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Summit Meeting Notes
NORTHERN INDIANA WORKFORCE INVESTMENT BOARD
ADVANCED MANUFACTURING SOLUTIONS SUMMIT
January 19, 2006
Christos
Plymouth, Indiana

PRESENT: Becky Wennerstrom, Jamie Stackhouse, Val Locke, Karen Dady, Suzie Johnson, Carol Ruff, Susan Kinnucan, Steve Seevers, Jean Perrin, Melissa Denton, Carolyn Fermoye, Lisa Bohner, Sharon Prusinski

STAFF: Juan Manigault, Dan Hendricks, Chuck Pressler, Barbara White

I. INTRODUCTION

Juan Manigault informed that group that NIWIB had received high marks on the two SSI Reports submitted to the state: (1) The Occupation Shortages Report scored 92/100 and (2) The Skill Shortages Report scored 98/100. Mr. Manigault said the Solutions Phase of the project was very critical. Manufacturing occupations and the kinds of skill shortages we identified are consistent across the state. The second is health care. Today this group will talk about solutions and how we address the root causes. Solutions identified can make a difference for your companies and employees.

Dan Hendricks said the purpose of the meeting is to provide opportunity to give input into the development of solutions for Skill Building. We have identified four specific areas for occupations. He said we want to be capable of making your employees be job ready not only for now but for the future.

II. PRESENTATION – DAN HENDRICKS & CHUCK PRESSLER

Power Point Presentation and short demo of the Virtual Reality Program was presented.

The presentation is included with this report.

The findings listed below are results from the focus group meetings and interviews conducted over the last few months in the region.

Critical Job Shortages in Advanced Manufacturing

- Painters
- Welders

- CNC Operators
- First-line Supervisors

Root Causes of Critical Job Shortages:

Painters

Lack of skill building opportunities

Welders

Lack of upward mobility skill building. Noted as a transitory job.

CNC Operator

Lack of skill building capacity reaching all of the region

Too few machinist and operators in the pipelines

Skill Building Delivery Options

Traditional education through the local colleges and universities

Training through the local colleges, universities and public schools

21st Century Skills Lab

Comments from the group on how the identified root causes resonate with personal experience:

Painters

- Concerns listed in the report are from the RV Companies who were not represented at this meeting.

Welding

- There is a natural plateau rise to a level of where there is no more mobility.
We have a finite need – and after that, we simply do not have a need.
- Having individuals trained sufficiently to meet our needs is something we would be willing to support but to train them to meet the needs of another employer is something we are not interested in doing.

- Juan Manigault said we are searching for Innovation and “Just in Time Learning/ Training”. You might not have the need today but if we have the innovation in place, it can accommodate unknown types of welding tomorrow. And to also provide the basic academics so that individuals have the capability of understanding what is happening tomorrow as well as being able to handle the requirements needed to perform a job today.
- Future welders may need to have some awareness in skills in brazing, soldering, and as products become electronic, etc.
- Very little training needed except maybe for our maintenance workers to a small degree
- Most companies have machine operators not actual welders. We have a handful of welders for repairing.
- The goal of a welder programmer skills training would not necessarily be a certification however, would be simply an acquisition of skills to enhance their own job in respect to what that job is.
- Some manufacturing companies are working with the team concept. Each member of the team has to have some welding skills.
- If the employee does not need to be that master welder, the virtual reality would be fine but if an individual needs to know everything about welding because this is all they do. It has to be a blended learning. It would be a good ideal to have a mixture of virtual reality and the actual college education.
- Welding is not a career it is a skilled position

CNC Operators

- In the classroom, lots of time is spent on theory. Virtual Reality could fit with Ivy Tech open lab setting.
- Pre Testing/Post Testing

Suggest using WorkKeys for pre testing but it is up to employer to determine appropriate tool to use.

- Ivy Tech has CNC program but we are not seeing people being funneled through it.
- Federal Mogul has a machinist program, which is part of a Skills Advancement Program.
Employees sign up to take college level courses on their own time. Upon completion, they can bid on a machinist job when it becomes available. However, this does not mean, they automatically get this position. Selection goes by seniority and employees have to test out. Unfortunately, it could be years before a machinist position becomes available. Virtual Reality would come in place to give employer a refresher course before they were able to go out and do the job.
- Dan Hendricks said the purpose of this skill building process is to get people on line capable of high skills, where you are going to pay them high wages as fast as possible.
- Chuck distributed copy of a CNC syllabus of lectures.

Supervision

- NIWIB staff review top companies on supervisory training and decided to work with Ivy Tech State College to provide “Just In Time Supervisory Training” Course.
2 ½ hours training in six different subjects for six weeks
Additional 6 weeks of training after employee have had time to apply on the job
- Basic Supervisory Modules are listed below:
 - Rules and Responsibilities
 - Communications (Feed back/listening)
 - Motivation
 - Conflict Resolution
 - Legal Issues
 - Discipline

- It would be good to have hours of consulting added into program
- Test integration of skills into the workplace. Mentoring and coaching can be very valuable
- Maybe appropriate for Return on Investment – Employee participate in this training and align with company's measurables to see if there is any improvement.
- Dan, Chuck and Carol will review other pieces to add to the core rather than just traditional training.
- Ivy Tech is looking to offer math, blueprint and measurements.
- Advanced Area – looking for Purdue to offer course work and/or specific training that would get us to the next level of some other advanced manufacturing techniques.

Delivery

- Traditional education through the local colleges and universities– tuition reimbursement
- Continuing Learning (CEUs)
- 21st Century Skills Lab
 - Traveling Mobile that can go anywhere

The group discussed in great length the advantages and disadvantages of using Virtual Reality. Comments listed below:

- With the lab environment – we can have 10 stations and have some people working on welding at one time and some people working on CNC at one time
- For some people the virtual reality in terms of the lecture would support their learning styles but others may have completely different types of learning styles. The other issue is what if people have questions that need an answer right now are we going to invest in a mobile training lab and also have a facilitator there? We need to building in funding to support people who may need assistance to get to the level you trying to get them.

- In the past have experienced in problems with distance learning environment:
 - Not having a physical lab person on site
 - Unfamiliar with computer
- When we talk about training the workforce for the future, use of computer skills, some people have different comfort levels in the training environment. We need people to be self sufficient instead of relaying in the traditional training method.
- Workers could get up to speed using WorkOne programs to enhance computer skills.
- Can it serve as an awareness and training tool? Pay for at one time and have it do both.
Serve double purpose.
- Virtual Training brings in all learning styles
- We are conditioned to our current educational process and use to having an immediate response. Can we move towards a learning period to implement a new process?
- Ideally, would like to send employees to a classroom but realistically for manufacturers companies cannot afford to let our employees to be gone for long enough from the office for training. We need to give them something which maybe a virtual lab or you give them nothing. Between the choices, it becomes clear what becomes most useful for the industry. Production is more important, you cannot be there if you are not making a product.
- Time is a valuable resource. Off-Site training is costly
- Is it possible to have van driver handle answering questions and/or work with educational industry to get quick response back to student?
- For CNC Operators it gives them maximum control of the environment.
- Studies show using virtual reality have a greater level of retention
- Virtual Reality allows people to work at their own pace

- If someone needs a babysitter or has learning issues most likely this person is not going to be individual that I would hire.
- Take mobile van to magnum high schools and allow students opportunity to be exposed job available in the advanced manufacturing industry
- Suggest using Virtual Reality as introduction with welding lab
- Virtual Reality is based on a 10th Grade Level and is all internet E-learning based.
To access the program a person needs Internet Explorer, DSL, or Satellite to connect
- Our Future Generation is more computer literate and it would easier for them to catch on.
- Staff is looking for input from this group on how to maintain the mobile unit and equipment. Where will it be housed, who will run it, how are we going to get capable people of running it?

Funding Partnerships

Juan Manigault led the discussion on companies collaborating with NIWIB on this project.

The first year the SSI project is funded 100%, the second year the state will provide 50% funding and the third year the organization has to find its own funding.

He asked participants the following questions. Responses are included.

Q. Location – What is the best strategy for training your potential employees?

Responses:

- Hoosier Tank
Van on company premise would be a plus
- Curtis Products
Office is close to Ivy Tech Community College but an advantage to have van on company premise. Advertise to other companies how we are investing in education
And allow them to use services on site. Very economic if we have two people to send for training.
- Federal Mogul
Ideally on site – if mobile unit had similar equipment

- Master Medal Engineering
Virtual Reality is a great introduction tool. Someone needs to verify the skills that are being tested. Mobile Unit on company premise but not in shop.
- NIBCO, Inc.
Like Virtual Reality Training but worker need to be able to smell and feel the products
- Dexter Axle
Mobile Unit on site
- Polygon Company
Mobile Unit on site

Q. Modality – most effective for your company – On site /Lab/Ivy Tech/Classroom/Blended Learning

Responses:

- Hoosier Tank
Should be blended plus tailored to each company process
- Curtis Product
Ability to customize to meet specified needs
- Federal Mogul
Blended Learning in classroom or virtual lab
- Master Medal Engineering
Blended Learning
- NIBCO, Inc.
Plastic Company that need Technical Maintenance Workers and do not need Welders or CNC Operators. Prefer Blended Learning
- Dexter Axle
In some cases if other than job related, employees need to be responsible for after hour training
- Polygon
Blended training

Q. Do you think the strategy we are employing will result in a willingness on the part of your companies to participate as partners in the education process?

Responses:

- Hoosier Tank
Willing to pay for the services if feel it would truly benefit us
- Federal Mogul
Will have to check with Plant Manager
- Master Medal Engineering

The company has training dollars and do not mind spending if we are getting something out of it. Not willing to hire people and then send to train how to be a CNC Machinist

- NIBCO, Inc.
Depend on training grants
- Dexter Axle
Have to talk to Supervisor
- Polygon
Concern would be if required to contribute money each year even if company is not utilizing training each year.

In Summary

- The group recommends that NIWIB staff should work on Virtual Reality Program and include into Strategic Skills Initiative Proposal.
- The group prefers blended training with the opportunity to have training on site. As the workforce, gets up to level employees should take on the responsibility of continuing their education off site at an educational institution. Companies are interested either set aside budgetary money for training or they will pursue training grants from the state to offset the cost.
- Other sources of funding for training could come from the Regional Skills Training Grant
- Suggest tailored partnership to individual companies rather than pool partnership.

Meeting adjourned at approximately 10:30 am

Recorded by: Barbara J. White

NORTHERN INDIANA WORKFORCE INVESTMENT BOARD

HEALTH CARE SOLUTIONS SUMMIT

January 19, 2006

Christos

Plymouth, Indiana

PRESENT: Jinny Longbrake, Mary Jo Regan-Kubinski, Cathie Dilley, Kim Wilcoxson, Joe Jarboe, Cathy West, Lyn Batzer, Carol Kirkner, Howard Blackwood

STAFF: Juan Manigault, Dan Hendricks, Chuck Pressler, Barbara White

I. INTRODUCTION

Juan Manigault informed that group that NIWIB had received high marks on the two SSI Reports submitted to the state: (1) The Occupation Shortages Report scored 92/100 and (2) The Skill Shortages Report scored 98/100. Mr. Manigault said the Solutions Phase of the project was very critical. Health Care occupations and the kinds of skill shortages we identified are consistent across the state. Today this group will talk about solutions and how we address the root causes.

Dan Hendricks said the purpose of the meeting is to provide opportunity to give input into the development of solutions for Skill Building. We have identified four specific areas for Health Care occupations. He said we want to be capable of making your employees to be job ready not only for now but also for the future.

II. PRESENTATION – DAN HENDRICKS & CHUCK PRESSLER

Power Point Presentation was presented and included with this report.

The findings listed below are results from the focus group meetings and interviews conducted over the last few months in the region.

Critical Job Shortages for Health Care, which were identified in the Initial Phase in Health Care Industry

- Coders
- Respiratory Therapist

- Medical Assistants
- Registered Nurses

Root Causes of Critical Job Shortages:

Coders

The job shortages exist in the hospitals not in physician offices.

- Inadequate funding for training for career ladders, leaving workers in low wage occupations.
- Ongoing Retention of Coders and continuing education and laddering to enable those who do have the certification.

Respiratory Therapists

- No education program available for enrollment in the region

Medical Assistants

- Inadequate funding for training and career ladders, leaving workers in low wage occupations.
- Laddering – retention – maybe wage, stress, environmentally or family base.

Registered Nurses

- Lack of 13 funded MSN positions to train 127 potential nurses
- Lack of enough supervised clinical sites.

Comments from the group on how the identified root causes resonate with personal experience.

Coders

- Currently two Ivy Tech Campus' sites are running the HIMA program. The

plan is to do this state wide on the Internet, which allows any campus in the region to offer 50% of course work. There is also a Bachelors Degree Program in this field.

- Once the coder becomes certified, they can move to a supervisor or director's job, if talented enough. At small hospitals, there are opportunities but contingent upon openings. Kosciusko Community Hospital offers in house supervisory training but does not have a cancer registrars like some of the bigger hospitals.
- Memorial Hospital needs an emergency room coder. One level of coding is done in this department. At most facilities, a coder ladder is two levels but there are also some places where the need exist for a coder auditor, which would be a third level.

The Coder Auditor is responsible for ensuring the accuracy of all the coders both in the emergency room and on other floors/department. At Memorial Hospital, it is one of the coder's job responsibilities and not a different job class.

- I would like to set up program with students who are in school to give them experience in coding by having them do some light coding within specific departments, which would alleviate some of the pressures of the main coders.
- Some individuals are taking advantage of national certification on line training even though the company does not provide tuition reimbursement. Memorial Hospital is looking to address internally.
- As adult learner, not all of us are successful with completing on line training. Unfortunately, this could reduce the number of successful people who go through the program.
- IUSB is offering coding training at a different level. There is a difference between

Hospital and Doctor Office Coders. The hospitals use a different kind of book.

The schools are trying to work with the hospitals to provide successful training.

- There is an on going and in the future a continuing deficiency of hospital-oriented coaches.
- Fort Wayne is the leader in the area in Physician Coding and has presented a proposal to the Commission of Higher Education.
- Suggest involving the students that have gone through the physician coding because they have a basic background. Offer as an incentive one additional year instead of the 2-year requirement.
- Coding is more than just matching a condition with a code. If you do not code it right the first time, you cannot go back and recode. The company loses money.
- Coder Instructors are very difficult to find. A Masters Degree is necessary.
Currently Ivy Tech Community College, Indiana University South Bend and Davenport University have programs.
- The hospitals have turnovers in the coder positions not because of wages or career ladders but workers are being attracted to Work-At-Home Options. Kosciusko Community Hospital cannot provide family oriented benefits to the Coders. However, Work-At-Home options would be available to Transcriptionist.
The hospitals located in the Ft. Wayne area offer this benefit to the younger or ready to start family job seekers.
- Managers want experienced people so lots of times, we shoot ourselves in the foot because we do not want to train anyone.
- Memorial Hospital had this same problem but now will accept new graduates. The problem at this hospital is not related to career ladders but wages is a factor. In the past sign on bonuses vs. using a contract person

were used to attract workers. However, once the sign up bonus is up the individuals are leaving to go back to some place else where they can get another sign on bonus. Currently, individuals commute from Michigan City until they find a better offer or job closer to home.

Respiratory Therapists

- Ivy Tech could use same lab space for nursing programs. Instructors are willing to share space.
- Numerous individuals ask about the program and Ivy Tech has to send them to Fort Wayne.
- Memorial Hospital desperately need Respiratory Therapists and has six open positions.
- Because of the aging population, the need for Respiratory Therapists is growing.
- One of the barriers is the amount of time students can allow for training.
- People want to continue education and work on careers and could succeed but they cannot financially afford not to work.
- Memorial Hospital had scholarship program, which subsidize the income for nurses going to school, but had to discontinue when funding went away. Requests for the scholarships increased from 15 to 80 people.

Medical Assistants

Chuck asked the group of attendees, Is there a possibility for funding career ladders in house that would help medical assistants acquire the certification credentials, education, training they need to advance to other positions?

The responses from participants are listed below:

- The influx of people who are applying for the scholarships and reimbursement of class time are

individuals from the Patient Care Assistants (PCA).
These individuals want to move up the career ladder.

- Memorial Hospital would have fairly big numbers of people on these tracks if funding were available to help them either offset educational expenses or by subsidizing their income while they get their education. The hospital has done this in the past and was successful until funding ran out.
- At Kosciusko Community Hospital, if funding were available the CEO may not be receptive to pay people to not work and go to school. He might do it for a CNA training for a Registered Nurse. However, doubtful he would interest in CMA transition to Physical Therapist or CMA transition to Occupational Therapy Assistant. CMAs are currently entry-level positions.
- We do offer clinical ladders for most jobs however, employees have to be willing to take the initiative to get into the loan program or take the time to go to school. This is a real problem.
- The Patient Care Assistant's (PCA) at Memorial Hospital go through a 4-6 weeks internal training.
- There is a quantum leap between a PCA and RN. It is not only the skills, it is not only what you do vs. what you know. Not sure, there is a role for the educators in house. It takes time to nurture and develop in the classroom and on the job.
- Lack of knowledge of opportunity so people can be attracted into these lower level jobs because:
 - they don't know
 - different culture and mentality
 - when you get someone who has the motivation – share it
 - Hispanic population cannot pass the entrance test to be a candidate for admission for fall semester.
 - Lack of critical thinking skills
 - Need to be strong in science and math to make it.

Registered Nurses

- Bethel College has a Nurse Educator Program. It is not a clinical program
I would advocate for people with Bio-chemical not to go through the program.
- Not enough Nurses with an MSN to teach.
- Instructors teach classes they have not done themselves.
What can we do to change regulations?
- Do not see the point for non Bachelors Degree being admitted into MSN program unless along the way they are licensed as a nurse. Some programs currently exist.
- Ivy Tech currently has nurses enrolled in a BSN Program on a fast track
- ISUB is pursuing offering Master's Program in South Bend however, there is a moratorium on all graduate programs. We have quite a few nursing faculties who are in the Ball State University program and a number who has gone to Bethel. The students would much prefer local program vs. Bethel College or on line courses. Bethel College is more expensive than Ball State University.
- For general education, classes IUSB have used non-nursing faculty to teach certain courses. e.g., used a Psychologist to teach a statistics class. However, for state specific courses state law prohibits non-nursing faculty teaching.
- Funding for 1 ½-faculty positions to teach in the MSN Program at a cost of approximately \$100,000 would be a huge step to eliminate bottlenecks.
- The medical school at IU South Bend has agreed to let us use their labs to teach health assessment at a higher level.
- Hospitals are liable and would not support using non-nursing faculty to teach clinicals. IUSB students practice under the license of the Clinical Instructors.

- IUSB is already using non-nursing faculty in administrative positions.
- An individual with a BSN can only teach in specific clinicals.
- Tuition rebate and salary adjustment to facilitate partnerships whereby students can maintain income while receiving graduate education. Teaching facilities and hospitals do not have fund to support this.
- Currently nurses commute once a week to get training in Indianapolis.
- The nurses being trained now do not have the skills they used to have.
- Increase the pipeline for individuals to get into Associates Degree programs at Ivy Tech and IUSB. Grant was submitted to get funding to support clinicals, in addition, get more instructors and to offer clinicals during the evening hours.
- South Bend Schools need additional locations to perform more clinicals and face strong competition from the Michigan Schools.
- Schools are receiving offers to provide programs but no funding is being provided.

The group discussed what could SSI do for their organizations?

- Provide assistance to hospitals to help individual get through the schools but not sure if paying the tuition would solve the issues

- Tuition reimbursement – individual have to pay first and then be reimbursed.
- Finding coders at Memorial Hospital is very difficult but not sure the hospital could provide jobs for all individuals if a coding program was established in South Bend.
- Advertise Distance Learning opportunities through Ivy Tech.
- SSI would be a great assistance if they provided financial assistance to the coding program at Ivy Tech and IUSB.
- SSI pays the training funds for an individual after successful completion of training, the employee would pay it back. The funds would be offered to others to offset the cost of tuition.
- Recruitment of minority and English as a second language-speaking people into nursing program using initial remediation as an entry into the program.
- Career Awareness of lower level jobs for junior high and freshmen in high schools to identify opportunities in the health care industry. Washington High School serves, as magnet school for health care services.
- Take the mobile van to the mall during the weekend to get people interest in the health care industry.
- Getting more people involved in the program could create a bottleneck
- Programmable Mannequins

In summary

SSI could provide solutions to existing programs by:

- Creating an endowment – start up money would help greatly
 - Funding management
 - Funding mobile unit to be shared by the schools
 - Funding faculty positions
 - Funding students to go into MSN program

- Freeing up the school's tuition money to pay for faculty salary

- Provide funding to increase the number of people who would be interested in the Associate and Bachelors Degree of Nursing Program. Provide some type of match to subsidize the work hours that they are not able to work full time and to pay back certain percentage of the money. Maybe offer a combination of both. With stipulations that once you get your degree you have to pay back the funds provided you so funds would be available for someone else to take advantage of the program. For the MSN program, stipulate requirement to teach.

The group discussed in great length the advantages and disadvantages of using Virtual Reality. Comments listed below:

- The mobile van could be placed hospitals or at the training institutions

- Provide at least 12 stimulators – to demonstrate real life situations

- Hands on is best

- The training lab would not substitute for some of the basics but it would substitute for some hands on training.

Funding Partnerships

Juan Manigault led the discussion on companies collaborating with NIWIB on this project. He said our constraints in asking for dollars, is the amount of matching funds we can generate. We are looking at ways to benefit each organization. He asked if it was appropriate for companies to help support some of the infrastructure cost to maintain the mobile van.

Responses include:

- Willing to help to support vehicle

- Will allocate funds from training budget to promote medical field

- Important for ongoing partnership with the five county areas.

Meeting adjourned at approximately 12:40 pm

Recorded by: Barbara J. White

Strategic Skills Regional Consortium Notes

NORTHERN INDIANA WORKFORCE INVESTMENT BOARD

21ST CENTURY SKILLS CONSORTIUM STRATEGIC SKILLS INITIATIVE MEETING MINUTES February 7, 2006 Swan Lake Resort Plymouth, Indiana

PRESENT: Bob Abene, Doug Anspach, Lisa Babincsak, Debbie Berger, Howard Blackwood, Eric Brown, Lola Brysz, Fred Carmel, Dawn Chapla, Debie Coble, Mark Curtis, Karen Dady, Rob Ducoffe, Carolyn Fermoye, Beth Firestone, Mary Sue Frietag, Wendy Hatcher, Allison Heyde, Debra Howe, Jack Isles, Greg Jones, Larry King, Carol King, Sue Kinnucan, Carol Kirkner, Krysten Shoulders, Fred Lanahan, Julian Lewiecki, Jinny Longbrake, Sonja Matheny, Pat McMahon, Mark Melnick, Greg Morris, Jacqueline Neuman, Michael Patton, Jean Perrin, Tom Primrose, Sharon Prusinski, Bryan Pyszka, Mary Jo Regan-Kubinski, Ann Rollman, Carol Ruff, Leeann Schaller, Kathy Sokolowski, Rick Solao, Tom Spicka, Fred Thon, Graig Toth, Cathy West, Kim Wilcoxson, Heather Williams.

STAFF: Kay Cochrane, Dan Hendricks, Chuck Pressler, Lynda Kay Smith, Barbara White.

I. CALL TO ORDER

Jinny Longbrake called the meeting to order at 8:45a.m.

Dan Hendricks shared that the purpose of today's meeting was to provide Seven Solutions in Seven Causes. Dan advised that the Circle of Solutions included the following:

- Solution 1: Process Innovation
- Solution 2: Virtual Reality Skill Building
- Solution 3: Academic Programming and Skill Building/Training
- Solution 4: Educational Endowment
- Solution 5: Work Ethic and Basic Skills
- Solution 6: Career Awareness
- Solution 7: Future Skills

Dan also shared that there is \$20,000,000.00 to be distributed across 11 regions. We are requesting \$4,000,000.00 for our region. The Phase 3 Report including budget information will be completed by Friday, February 10, 2006.

Strategic Skills Initiative – Phase 3 – Solutions
Purpose – Provide Seven Solutions in Seven Causes

II. POWER POINT PRESENTATION – DAN HENDRICKS AND CHUCK PRESSLER (See attached)

Review of Root Cause and applicable Solution. Dan and Chuck provided extensive explanation and examples of Training Modalities and Virtual Reality Skill Building. Dan explained the Rationale for Virtual Reality and how Virtual Reality will bring tomorrow's technology into today's training. Dan shared that proposals are being considered in an effort to partner with Ivy Tech or Elkhart Career Center in bringing this type of training to all areas of region 2.

Chuck Pressler introduced the concept of the Mobile Lab as another way to facilitate on-site training for employees. Chuck advised that this training modality can be moved to where it is needed. Chuck encouraged the group to tour the Mobile Lab which was brought on site for today's meeting.

Discussion was given to Academic Programming as it relates to skill building/training. Examples were given as to how IUSB and Ivy Tech can partner with employers to implement solutions to the technical skill shortages in the health care field.

Dan and Chuck also shared possibilities for funding these training programs. Examples of possible funding sources were the following:

- Private funding
- Endowments
- In-Kind
- Grants

Dan reiterated that we are in the budget process and we must be able to show the state that we can fund 50% of the cost of equipment necessary for training programs. Dan shared that programming is funded 100% the first year and 50% the second year. By year three, the state expects us to be self sufficient and at a level of sustainability.

A call was given to the group for Letters of support for SSI and Implementation of SSI. Letters of Support should be sent by e-mail no later than Friday, February 10, 2006 to dhendricks@niwib.com. Letters of Support will be included in the Phase 3 report.

III. QUESTIONS/COMMENTS

Pat McMahon of Project Future shared information about the Fiber Network in St. Joseph County. This is a dedicated fiber network that helps to facilitate the communication and data transmission between institutions at a very high rate of speed. South Bend has more fiber optic cable than anywhere else in the region.

Pat McMahon commended the SSI Team on Phase I and Phase II of this initiative. Pat also commented on the wide range of root causes and solutions we are facing. Pat raised questions regarding the \$4,000,000.00 figure and inquired about how we plan to narrow down solutions to areas that will be sustainable.

Chuck and Dan responded that the Workforce Investment Board is the facilitator and we are relying on our partnerships to share in the cost of implementing solutions. Chuck also shared that we are mandated to address areas of the greatest need first. The shortages of Registered Nurses and Respiratory Therapists are at the top of our list.

Questions from the floor were addressed regarding funding and why only \$4,000,000.00 out of the total \$20,000,000.00. Dan explained that the \$20,000,000.00 would be distributed across 11 regions. Dan also shared that once we get the specifics on funding, we will know better what we can implement.

Jinny Longbrake encouraged the group to get together with leadership and talk this program up.

It was the consensus of Dan, Chuck and Jinny that we are looking to our employer partners to be responsible for sustaining these programs. Chuck shared several examples of WIB offices across the country that has demonstrated sustainability of programs.

Greg Jones requested information regarding the May 06 Conference. Chuck Pressler encouraged the group to attend the Youth Violence Forum, March 16, 2006 and the Economic Summit, March 23, 2006.

Fred Thon offered a motion to approve SSI Phase 3 – Solutions; motion was seconded by Doug Anspach. Motion carried.

Meeting adjourned at approximately 10:40 A.M.